



May 25, 2007

**EX PARTE PRESENTATION**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

**Re: *Ex Parte Presentation* in IB Docket No. 06-123**

Pursuant to Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, EchoStar Satellite L.L.C. hereby submits this letter summarizing an *ex parte* presentation from yesterday in the above-referenced docket. Representatives of EchoStar met with Chip Fleming, Diane Garfield, Andrea Kelly, Louise Klees-Wallace, Robert Nelson, Paul Noone, and Cassandra Thomas of the Commission's International Bureau.

During the meeting, EchoStar reiterated that the Reverse Band represents critical new spectrum especially for spectrum-starved direct-to-home satellite providers, which are seeking to provide new bandwidth hungry HD services. EchoStar expressed concern that all existing and potential consumers may not benefit from the new spectrum, because the current Reverse Band Order does not facilitate providers' ability to invest and use this spectrum most effectively.<sup>1</sup>

In response, EchoStar proposed a minor addition to the rules to reflect the technical limitations of a small dish satellite service. Specifically, a satellite located between 0.7° (too far away for a single satellite feed horn) and 1.8° (too close to allow a new satellite feed horn) from existing satellite operations would require a second consumer dish to receive service from the new satellite.<sup>2</sup> Unfortunately, the orbital spacing plan adopted by the Commission results in

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<sup>1</sup> See *Establishment of Policies and Service Rules for the Broadcasting Satellite Service at the 17.3-17.7 GHz Frequency Band*, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-76 (May 4, 2007). Although the orbital plan does provide DIRECTV, the largest DBS provider, with the ability to incorporate efficiently the new spectrum allocation into its existing constellation, the same is not true for the majority of EchoStar's operations. This disparately impacts EchoStar's subscriber base, made up of primarily cost-conscious and rural consumers. We believe the flexibility proposed here will close this disparity and not harm DIRECTV or any other potential licensee.

<sup>2</sup> The most desirable option is to deliver satellite signals from multiple satellites to consumers from a single satellite feed horn, which does not require significant modifications to the current dish design or size. EchoStar Comments, Technical Annex at 1-3. For instance, EchoStar is currently providing service from its 119° WL DBS cluster as well as Ku-band services from 118.7° WL through a single feed horn. This technique requires that Reverse Band

numerous Reverse Band orbital locations that are located in this sour spot – either too close or too far from existing satellite operations, particularly DBS operations, to permit the most efficient use of the spectrum.<sup>3</sup> As a result, some providers will not be able to take advantage of the clear operational benefits of overlapping Reverse Band and existing satellites and the consumer benefit of a single antenna with dual band receivers, which are both well-established in the record.<sup>4</sup>

Flexibility Under Current Order. Encouragingly, the Commission has already recognized that licensees require the flexibility to operate “off slot” in order to accommodate foreign ITU BSS assignments and to avoid interference from existing operations. *Order*, ¶ 74. This flexibility offers the promise to allow providers to shift satellite locations. To ensure that such flexibility would not impinge on other satellite operations, the recent Order requires substantial reductions in power and acceptance of increased interference from adjacent operators when operating off slot. However, the shift “off slot” and resulting power reductions that are required for EchoStar to avoid the “sour spots” is dramatic. Indeed, a technical review of these restrictions demonstrates that off-slot operation would effectively prevent high-power DBS-like video services to small consumer dishes from off-slot operations. The totality of factors – reduced power, dish mispointing, reduced dish isolation, and increased adjacent satellite interference –

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satellites be located in close proximity (yet far enough away to avoid satellite-to-satellite interference) to existing satellite operations. From an engineering perspective, to permit a single feed horn, satellites should be within 0.5° of each other, and no more than 0.7° apart. The other single-dish solution is to add additional feed horns to the consumer dish to accommodate the new spectrum. An additional feed horn has two clear competitive drawbacks: (1) it requires a much larger dish for such small satellite separations; and (2) adds additional expense and complexity to dish design, manufacturing, and installation. Again, there are also technical limits to the ability of DBS providers to add additional feed horns: satellites need to be approximately 2° or more apart (even with a larger dish) to ensure efficient and reliable service from both satellites. While it is technically feasible to provide service from two feed horns for satellites only 1.8° apart, such close operations sacrifice service quality and reliability, and should be avoided if practicable. *See also* Ex Parte Presentation of EchoStar Satellite L.L.C., IB Docket No. 06-123, at 7, 10 (May 17, 2007) (highlighting explicit limits on the size of protected dishes under OTARD).

<sup>3</sup> For instance, 111° WL is 1° away from the 110° WL DBS cluster, and 63° WL is 1.5° away from the 61.5° WL DBS location.

<sup>4</sup> Intelsat Comments at 7 (supporting band plan that would permit “overlap [with] current Ku-Band and Ka-band FSS orbital locations”); DIRECTV Comments at 4 (detailing proposal that would result in Reverse Band satellites “coincide[ing] with existing FSS” operations); EchoStar Comments at 9 (citing the “very significant” “advantages of allowing near-collocation”); DIRECTV Comments at 5 (seeking to “capitalize on the possibility of marketing a single antenna with dual-band receivers”); SES Comments at 14 (supporting orbital band plan that would allow “use of a single feed antenna”); EchoStar Comments, Technical Annex at 2 (noting that “the single multi-frequency feed is by far the best solution as it minimizes the cost of the overall subscriber antenna system, allows a smaller more aesthetically acceptable dish, and makes the offering more attractive to consumers.”).

significantly alters the cost/benefit analysis of providers investing in a \$300 million plus Reverse Band satellite that would have to operate under such constraints.

Proposed Modified Flexibility. This existing flexibility can be modified, however, to preserve the utility of the band for all providers and still provide opportunities for the consumer services EchoStar hopes to provide. Licensees under this approach would be permitted to operate at full power and full interference protection for off-slot orbital locations within 1.0° of the designated orbital location. An operator's right to trigger this additional form of flexibility at the time of their application would be limited to instances in which the adjacent orbital location – in the direction in which flexibility is sought – is vacant or becomes vacant in the future. For these purposes, “vacant” would be defined as any 4° orbital location in which there is not a pending application or current licensee in the Reverse Band.<sup>5</sup> Thus, this new form of flexibility would not affect any existing Reverse Band operators or the seventeen pending applications. Later applicants seeking to operate adjacent to an off-slot satellite would be required to protect all pre-existing licensees from harmful interference.<sup>6</sup> No further changes to the Order or licensing rules would be necessary to accommodate this flexible approach.

This additional flexibility is consistent with the Commission's broader policy considerations and precedent.<sup>7</sup> First, it would provide a clear incentive for providers to promptly deploy satellites in the Reverse Band. Thus consumers are likely to receive the benefit of new services from incumbent and new entrants more rapidly. Second, it would ensure that consumers continue to have a viable competitive video choice by providing satellite providers with sufficient spectrum to compete against cable. Third, it would avoid hampering consumers with multiple and

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<sup>5</sup> With respect to the modification procedures for the four initial applicants deemed simultaneously filed, an applicant seeking off-slot authority would designate a specific off-slot location. *Order*, ¶¶ 143, 145. If no other initial applicant designates the relevant adjacent orbital location, the Commission should grant authority to operate at the requested off-slot location at full power and interference protection. If, however, another applicant does select the relevant adjacent orbital location, the Commission should grant authority to operate at the off-slot location subject to the power reductions/interference limitations in the original *Order*. If the adjacent licensee's authority is subsequently relinquished or revoked, the off-slot operator should have the right to operate at full power and interference protection going forward.

<sup>6</sup> Potential applicants have expressed interest in services that could operate under such parameters, including IPTV, distance learning, telemedicine, enterprise/government video conferencing, or other broadband services. It should also be noted that later applicants could also potentially benefit from this off-slot flexibility.

<sup>7</sup> This is consistent with existing Commission policies for spectrum sharing among operations with co-equal status. Thus, stations with co-equal status on the Commission's Table of Allocations, for instance, are subject to a time priority rule whereby earlier deployed stations are entitled to protection from later deployed stations. *See, e.g.*, 47 C.F.R. 2.105(c)(2)(iii) (providing that stations of a secondary service "can claim protection...from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date.").

unwieldy consumer dishes. Finally, fostering spectrum efficiency will spur investment by incumbent and new entrants ensuring that the spectrum does not languish.

The DBS industry has been capacity starved since its inception, and new Reverse Band capacity offers the only clear vehicle to address this pressing need. From a consumer and financial perspective, it is imperative that this new spectrum is made available in a manner to allow operators to effectively and efficiently make use of the new capacity.<sup>8</sup>

Respectfully submitted,

/s/ Linda Kinney

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<sup>8</sup> There is only a short window to address this concern: initial applicants will be required to modify their applications to conform to the orbital spacing plan in the Order upon notice by the International Bureau. *Order*, ¶ 145. Applicants' decision to proceed with Reverse Band satellites and the most commercially attractive orbital locations may in many instances be dependent upon the degree to which the flexibility described herein is permitted. Subsequent action on a waiver petition or formal reconsideration petition could not undo those initial decisions. At the same time, there is a critical need for this capacity, and any further delay in the final processing of these decade-old applications would frustrate efforts of the industry to provide services expeditiously to consumers. The Commission has authority under its rules to address this matter immediately. *See, e.g.*, 47 C.F.R. 1.108.